

IN THE CLAIMS

Please amend the claims as follows:

1. (five times amended) A circuit arrangement for operating a discharge lamp, the circuit arrangement having reduced power loss, comprising:

a first circuit for generating a second DC voltage from a first DC voltage, including

input terminals for connection to a voltage source having a cathode and an anode for supplying the first circuit with the first DC voltage,

a switching element,

a control circuit coupled to the switching element for changing the conductive state of the switching element,

a unidirectional element, and

a transformer having a primary and a secondary winding;  
and

a second circuit coupled to the secondary winding for supplying current to the discharge lamp;

wherein the secondary winding, the input terminals, and the second circuit are coupled together such that the second circuit is supplied by a voltage whose amplitude is equal to the sum of the first DC voltage and the second DC voltage in order to transfer

some power from the voltage source directly to the second circuit without passing through the transformer,

thereby avoiding power loss that would result if the power directly transferred from the voltage source to the second circuit were instead transferred to the second circuit through the transformer.

2. (thrice amended) The circuit arrangement as claimed in Claim 1, wherein the lamp is a high-pressure discharge lamp.

4. (thrice amended) The circuit arrangement as claimed in Claim 1, wherein the first circuit comprises a DC-DC converter of the flyback type.

Please add the following claims:

8. The circuit arrangement as claimed in claim 1 wherein the control circuit controls the switching element so that the switching element is not self-oscillating.

9. The circuit arrangement as claimed in claim 1 wherein the first circuit further comprises;

first means for coupling the switching element and the primary winding of the transformer in a first series circuit to said input terminals,

a capacitor, and

second means for coupling the unidirectional element and the capacitor in a second series circuit to the transformer secondary winding.

10. The circuit arrangement as claimed in claim 9 further comprising;

means connecting the anode terminal of the input terminals to a first input of the second circuit via a circuit path that excludes the first circuit thereby to supply the second circuit with said first DC voltage.

11. The circuit arrangement as claimed in claim 10 further comprising;

second means connecting a second input of the second circuit to a circuit point between the capacitor and the unidirectional element.

12. The circuit arrangement as claimed in claim 1 further comprising;

means connecting a first input terminal to a first input of the second circuit via a circuit path that excludes the first circuit thereby to supply the second circuit with said first DC voltage.

13. The circuit arrangement as claimed in claim 12 wherein the second circuit includes at least second and third switching elements coupled to output terminals adapted for connection to the discharge lamp,

the control circuit switches the first switching element at a high frequency, and the circuit arrangement further comprises;

a further control circuit that switches the second and third switching elements on and off at a low frequency.

14. A circuit arrangement for operating a discharge lamp comprising:

a first circuit for generating a second DC voltage from a first DC voltage, including

input terminals for connection to a voltage source for supplying the first circuit with the first DC voltage,

a switching element coupled to the input terminals,

a control circuit coupled to the switching element for turning the switching element on and off at a high frequency,

a unidirectional element, and

a transformer having a primary winding and a secondary winding; and

a second circuit coupled to the secondary winding and to output terminals for supplying current to a discharge lamp; and

means coupling the secondary winding, the input terminals, and the second circuit together such that the second circuit is supplied with a voltage whose amplitude is equal to the sum of the first DC voltage and the second DC voltage.

15. The circuit arrangement as claimed in claim 14 further comprising;

means connecting a first input terminal to a first input of the second circuit via a circuit path that excludes the first circuit thereby to supply the second circuit with said first DC voltage.

16. The circuit arrangement as claimed in claim 15 further comprising;

a capacitor, and

means for coupling the capacitor and the unidirectional element to the transformer secondary winding and to a second input of the second circuit.